EXCHANGE

Newsletter of the

FRESNO ST USERS GROUP

Vol. 2, Num. 9 September 1987

Now that summer is almost over and school has begun the computer industry should start to role into high gear again. As many of you know summer time is the slowest time of the year for the home computer business. In the summer more people are out playing in the sunshine and so don't have as much extra time or money for their computer systems. This is the main reason that software companies tend to slow down on the release of new programs this time of year. That is bad news for all us software junkies who can't wait to try out the newest and latest programs come rain or shine. But now that school has started and Fall is coming we should start seeing many of the long overdue programs we have been waiting for.

Atari's purchase of Federated this last month has been causing allot of excitement on the national BBS's this month. It's obvious that Atari will not be able to rely on just selling ST's through Federated stores. This expansion does not really add any new dealers for the ST since almost all the Federated stores are currently selling the Atari computers. So why did Atari decide to get into the retail business? According to Jack Tramail he wants to become a total consumer electronics company. I am not sure exactly what this means but hopefully it will not divert Jack and Co. away form being mainly a computer oeiented business. We have already seen long delays in Atari's release of new hardware and if they get too involved in other business it may take forever for new products to come on line. But on the bright side Federated should start increasing their Atari hardware and software inventory so it may give third party software companies another reason to support the ST.

Another subject that has been causing controversy on GENIE and COMPUSERVE was Atari's recent announcement of the retail prices for the MEGA ST's. Originally Atari had led dealers to believe that the new computers would start around $1400 and go up to $1700, depending on the amount of ram and type of monitor. According to the newest price release the Mega 2 will be around $1700 with the monochrome monitor and the Mega 4 with a color monitor will run close to $2600. This is a significant increase over the original pricing and many potential customers are upset.

Atari's reasoning behind the higher prices seems to be that they are trying to get these newer computers accepted by some of the larger business type computer stores and these stores will not carry a computer unless they can make a higher profit than most of Atari's older resellers. The Mega computers are clearly not being aimed at the home market so they are not being priced in the lower price ranges. Atari is also going to try and keep these new systems out of mail order distribution so that reliable dealers will not have to compete with mail order prices.

This may not be all bad since if larger computer stores do begin to carry ST's we can be sure that larger software companies will begin to release more software for our favorite computer. And it's us folks with the 520's and 1040's who still get the best deal as far as price goes since we can expand our memory and add the Blitter chip to get the power of the Mega without the price.

I am going down to the Glendale Atari Show on Sept. 20 and hopefully will get a chance to see several new products for the ST. I won't have time to include anything in this months newsletter but I'll will give a report at the meeting on what I see.

Speaking of this months meeting we are really going to have a great show. Tony from Kip Lewis Music will be giving us a demonstration of some of the latest Midi keyboards from Kawai for the ST. These are some state of the art keyboards and the sounds are just fantastic. He will also be showing a drum machine and software for controlling the whole system with your ST. So if you have any interest in music or just like seeing some new applications for the ST be sure to attend. Remember, we are now meeting at Breuners Furniture at 7:00 sharp. Try and get there a little befor 7:00 so we can get the show started on time.

Greg Pyles

ST CLUB OFFICERS

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Submit camera ready copy to:

Fresno ST Newsletter
P.O. Box 3708
Pinedale, Ca. 93650

By the second Saturday of the month

TOS ROMS -- Blitter Version

The 1987 revision of TOS is scheduled for release in conjunction with the new "blitter" chip. The new TOS has been upgraded to include support for the hardware blit as well as retaining the software blit functions for full compatibility with older software which relies on hardware timing (a definite no-no).

Changes in the new ROMs are:

RS232: The RS232 handler has been completely rewritten. RTS/CTS handshaking now works. Baud rates 50 and 75 now work.

CLOCK: Support is now included for the Mega ST's built-in, battery- backer-up realtime clock. The realtime clock is automatically used by the XBIOS gettime and settime functions for the IKBD. The GEMDOS clock is reset from the realtime clock at the termination of every program.

STARTUP: Memory clear at system startup is much faster, improving performance on multi-megabyte systems.

DESKTOP: The desktop now includes a control for deactivating/activating the blitter chip. Also, the Save Desktop and Print Screen selections will request confirmation. Spurious characters are no longer written to the DESKTOP.INF file. Doing a PRINT or SHOW from the desktop will now display characters with ASCII codes above 127. SHOW and PRINT use a larger buffer now. Single drive copies now require fewer disk swaps.

CART: Cartridge handling has been revides, eliminating the need for "CARTSTART" code and allowing .TOS and .TTP programs. Lower case letters will now be accepted and passed to an application from the "Open Application ... Parameter" box.

AES: The AES will now send repeat clicks if the mouse button is held down on the arrow or page controls of a window, which lets a window smooth scroll. The AES underscore bug is now fixed. APPL_TPLAY and APPL_TRECORD now work. The limit of 30 characters on a line in an alert box is now rigidly enforced.

MOUSE: The mouse redraw can now be set to XOR mode. The system will return after a single click if this is what was requested.

DMA: The DMA bus can now have more than one device attached at powerup time, without any special software.

FLOPPY: The floppy read/write code checks for more errors now. In prior versions, the system would not report a CRC error under certain circumstances; now it will. This hurts some copy protection schemes. The format of the floppy disk has been skewed from track to track to improve disk speed; the XBIOS supports this by using-1 for the skew value and placing a pointer to a one word per sector skew table in the previously unused longword. **VDI**: The VDI will now draw arcs with small angles.

BIOS: Character out routines are much faster.

BLITTER: Automatic blitter chip support is included in line-A and VDI calls. The extended inquire will report a larger performance factor than before, allowing applications to check for the presence of the blitter. A new XBIOS call has been added to check for the blitter and to activate or deactivate it. The blit is not reentrant -- line-A and VDI should not be called from within an interrupt.

REGISTER: The registers D0, D1, D2, A0, A1, A2 have always been forfeit when a trap call was made. Now the demise of these occurs under more conditions than before.

MEMORY: Slightly more RAM is used by the system. Programs that were close to the edge on a 520ST may no longer fit.

VARIABLES: Most undocumented system variables have been moved. You were warned!

NOTES AND WARNINGS:

1. Some programs depend on the OS always being at $FC0000. This is *not* cast in stone and will probably change soon. To find the OS header, use the pointer "sysbase" as documented.

2. The 4 megabyte ST puts the screen near the end of accessible RAM. Sloppy programs that have been writing past the end of the screen will give bus errors if they do so on the 4 meg ST.

PRODUCT REVIEW

Datatrieve by: Bill Silverman

CAPITOL DISTRICT ATARI COMPUTER ENTHUSIASTS
AUGUST 1987 NEWSLETTER
P O BOX 511 DELMAR NEW YORK 12054
CDACE BBS (518) 237-1232

The search for good reliable serious software has had it's ups and downs in the years that Atari has been making computers. The Atari 800 VisiCalc was not a complete implementation of that old standby and it was not until the release of Syn Calc that any Atari computer had a viable full featured serious software product. I am happy to say that Datatrieve from Abacus Software is another fine addition to serious software for Atari computers - specifically the ST.

Datatrieve is not a relational database. It is, in fact something of a relational database in reverse. In essence you design a large database and then create custom report and screen formats to view those fields you wish to see. With some programs designing screen 'masks' and report formats require extensive knowledge of the program and perhaps a dash or two of macro mania, thankfully Datatrieve is an intelligent implementation of GEM allowing construction and selection fields, screens, reports, lists, labels, and even full form letters with either icons or menus that are mouse selected or keystroke commands. You can create some really fascinating formats for either screen or paper with Datatrieve with very little effort and little reading of the manual.

The program is basically a super index card filer which you can enter through any custom designed door (screen or report) you like. Having used this program since last January to keep track of 1100 children in a soccer club it's strengths and weaknesses have become apparent. Without a doubt the strong points of this program make it's drawbacks almost meaningless.

From that perspective we'll take those weak points first:

* You cannot move all types of data freely from one drive path to another. Some you can some can't. Worse, the manual doesn't tell you what is allowed to be moved and what is not. Learning what moves from a pathway and what does not is strictly a trial and error experience.
* The program does not remember where it goes for some types of files and does for some others. Therefore, a disproportionate share of the time you spend transporting subfiles or records from one file to another is spent with a mouse 'reminding' Datatrieve where you want the data to go. (On the other hand it does this flawlessly)
* There is a DIF option that is somewhat misleading. In reality it is really a mail merge option where you can customize field and record delimiters to match up to the requirements of your word processor. (On the other hand it is a great feature, Datatrieve and ST Writer are the equal of some software packages that cost over $300 and they cost under $40.00 combined)
* You have the option of selecting fields you want to use when transporting to and from files. When you save this field selection it becomes the default standard for all future data transfers. (But you are always asked if you want to save field selections and if you answer no then the current choice is only temporary)
* You can only sort the main database on one field at a time.
* The program is copy protected and there is a hidden charge of $10.00 for a backup copy.

Strong points: * The program comes with ram disks ranging from 100k to 600k so you can fit really large files into a ram disk.
* With a file on a ram disk and searching through an indexed field or multiple fields record selection is functionally instantaneous.
* Files can have unlimited numbers of subfiles. These subfiles can be sorted on any number of fields (the first field sorted has the lowest priority the last field sorted has the highest priority). (But you must do the sorts one at a time - click the mouse at the field, select the sort subrange (file) menu with a click, select the sort option from the dialog box, watch the little clock 'fill' until the job is done. On the other hand a 200 to 300 record sub file sorts in about 15 seconds including mousing around!)
* You can have up to four files open at the same time and effortlessly transport records between them using what Datatrieve calls sequential records (better be sure the databases are set for the same number of fields!!)
* A paper form can be literally duplicated on the screen.
* The user interface of this program is exceptionally easy. We have had dozens of parents come over for a couple of hours each to help type in information. The tutorial is a one record demo followed by two or so records of supervised instruction. The menus, icons, and red stickers on three function keys really make this a program a snap to learn.

(Continued on next page)

Datatrieve

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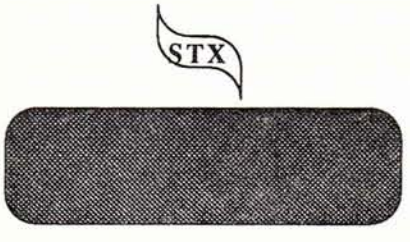
Within fifteen minutes of sitting down with the program for the first time people are able to work quickly and independently. (NOTE: the biggest problem for an adult is coordinating mouse movement to arrow movement on the screen - finally a functional reason for adults to play arcade style games.)

* Most important - this program does not bomb out. When I've done something stupid a dialog box pops up to tell me so. When the program hits a TOS error a cryptic TOS error box appears and with a press return you regain control of the computer so you can save your file(s) back to disk and then try to figure out what went wrong.

Summary: Datatrieve is a highly proficient database program. It is basically an index card type database but has immense size (number of fields, number of records) capabilities, extraordinary screen, report, list, and label capabilities, an ingenious interface between the computer and user offering the choice of icons, drop down menus, or keystrokes for most operations. In short it is the most useful ST program I have yet encountered.

Datatrieve by Abacus Software has a suggested retail price $49.95 (plus $10.00 extra for a backup copy of the program). It is available mail order for around $35.00.



THE SCIENTIFIC ST

by Richard Leinecker

Computer Spectrum Inc. $29.95

In our world today you can be sure you will be dazzled with amazing technological advances on a daily basis. With the advent of super- conductivity, we are on the very doorstep of being able to have an actual supercomputer sitting on our desktop with speeds that would make Roadrunner jealous! Yet, we do not need to twiddle our thumbs and wait for these great scientific advances in the computer field...the only limit to what a computer can do is the person sitting at the keyboard.

It would be a real understatement to say that the graphics I have seen to date on the Atari ST have often held me breathless! But the matter I really find holds my attention and captures my fancy is the ability to interface a computer with the real world, and enable it to control actual physical objects in our earthly realm. We see these principles demonstrated in the fields of Robotics and Space Exploration...but with the projects you will find in the book called "The Scientific ST" Richard C. Leinecker you will not need a NASA sized budget to pull off some genuine computing wizardry!

This fine volume comes with a disk of demonstration programs that allow you to actually use those projects you build to operate from your Atari ST computer. The disk I received with this package was single-sided, and so you SF354 owners will be able to run these fine software routines without having to bother your SF314 friends to break the disk down so you too can use it!. But...simply because it is indeed single-sided doesn't mean it isn't jam-packed with programming jewels...you will find very little free space on your disk!

In "The Scientific ST" you will first be shown some of the basics of electronics and project construction. You will be shown how to read the values of resistors, capacitors, diodes, and sundry types of transistors. A brief overview is also given to various types of regulators and IC's that you will use in your electronic undertaking. As you launch out in the wonderful world of kit building you are given several rudimentary projects to build that will clearly teach you the fundamentals needed to understand the joystick/mouse ports, the parallel port, and also the cartridge port.

This fine volume then proceeds to instruct us on how to build several fascinating projects that I can guarantee will assure you that you have indeed spent your money wisely when you purchased "The Scientific ST". We are enlightened on how to build a frequency meter that is capable of detecting and calculating an external frequency up to 16,000 Hertz. Then we proceed to delve into building a bar code reader that will read and interpret UPC symbols found on many items today such as groceries, clothing tags and the like. Next we are treated to a motor control project that would be useful in Robotics, and this little gem can be used to operate a motor with current requirments all the way up to 5 amps. When you complete your ST version of the Hero robot, you can then use the next project to determine

how fast he can go from 0-60! Ok, ok...I know I am getting carried away, but we really can do some amazing things with these projects!

The speed and acceleration project can detect and calculate the speed and acceleration of an object in motion with your own home computer!!

Imagine, you now be able to calculate the velocity of that projectile your wife hurls at you as you continue your quest to become the Worlds Greatest Submarine Captain!

As we proceed further into this volume we find a color discrimination project whose purpose is to analyze the color of the light in your immediate environment. The appropriate color values are displayed and your screen palette is set according to the previously calculated color values. More? Ok! How about a project that teaches you the difference between synchronous and asynchronous data? Or an experiment where we build a fully functional waveform generator which could be used for audio work or as a digital waveform generator for electronic design work? Or, how about a Lie Detector, ESP or precognition experiments, or even a memory trainer!!! Wow! But there is more! How do some biological experiments with mice, and three weather experiments strike you?

All of the above projects are setup so that you either build them to operate from your cartridge port OR your parallel port. At the end of this fine manual you will find a glossary which contains some recommended sources for parts and pc boards to be used in these projects. One item that we carry here at Midtown which would be a great help to you is a special adapter which plugs into your cartridge port and allows you to use standard spacing 44 pin perfboard and cartridge boards rather than the almost impossible-to-find and expensive boards that plug straight into the ST cartridge port. The cost of this adapter is 19.95 plus shipping and handling. Well, needless to say, I found this $29.95 book/disk combination a real treat and would highly recommend it to any Atari ST user, whether they want to use it for educational purposes or developmental purposes, as it is a priceless resource of information for the ST computer

-Mr. Goodprobe-
c/o Midtown TV
27 Midway Plaza Tallmadge, Ohio 44278 (216)-633-0997

STX

WordUp

A New word processor for the ST

I came across an ad in the latest issue of **Start** for this new word processor this month and it just so happens I found a press release from the company up on **Genie**.

Announcing WordUp, the new standard of word processing on the Atari ST. WordUp is the first in a series of superior products that Neotron Engineering(soon to be Neotron Inc.) will be bringing to the ST. WordUp reflects the philosophy of a company committed to producing low cost applications that utilize the potential of the ST to make high end tasks easier and more efficient.

WordUp is a full GEM application with multiple windows, desk top icons and all menu selections available from the keyboard (and yes it does work with **Thunder!**-copyright 1986 Batteries Included-in its as you type mode and on files that are saved as ascii).

WordUp supports any combination of character sizes, faces and styles on the same line. WordUp automatically reformats after any action including automatically spacing the line for font size changes, superscript, subscript and word wrap. WordUp is the first ST word processor that allows a graphic image and text on the same line. Additionally, text automatically flows around the image, and, since the picture is anchored to the surrounding text, it will follow the text during editing-unlike most page metaphoric desktop publishers. This brings up a point as to why we choose to identify WordUp as a word processor even though it possesses many of the features of a desktop publisher. Perhaps, we should call it a document processor since it facilitates the composition and layout of multiple page documents with it's powerful formatting capabilities while not limiting the integration of images and quality of output inherent in desktop publishing.

Through combination of access to the upper portion of the character sets (which contain foreign, scientific and various symbols) and the variable super/subscript feature, mathematical formatting is possible. Tables and columns of text and graphics are easily set up and maintained with the left, right, center and decimal tab ability. Another first, is user selected symbol or automatically numbered footnotes that appear just as they will print at the

bottom of the page; thus allowing, as you might guess, full font and line alignment capability (left, centered and justified) along with seeing the relationship of the footnotes to the body text as you type.

I can see that we are getting a little ahead of the ball game here; do not let us forget the ability to apply all formatting options to a paragraph, defined section or document separately and in combination. For example, line spacing which is adjusted in minimum increments of a point(1/72 in) is specified for the three with the sum being the actual spacing. This capability is applicable to most formatting features including top, bottom, left and right margins; thus, facilitating easy global or chapter(section) changes without altering paragraph indents etc.. Line alignment can be flush left, centered or justified, and, remember, everything is what-you-see-is-what-you-get as you type (no more preview and cumbersome reformatting necessary).

WordUp uses **GDOS** to output to the printer and the screen. Thus, any third party **GDOS** compatible printer drivers and/or fonts should work with WordUp. WordUp will ship with, as a minimum, three faces (Swiss-serif type, Dutch-sans serif type and Typewriter monospaced courier type) in 10, 12, 18 and 24 point for the proportional faces and Epson FX-80 compatible, Star Micronics NB24-10 compatible and Atari SMM804 printer drivers. This should cover most popular 9-pin and 24-pin dot matrix printers; however, we are working on more fonts (a font editor) and printer drivers-especially for laser printers. Don't forget that Atari's soon to be released laser printer will run GDOS.

As you can probably gather, WordUp has far too many features to describe in detail here. As a result, we will be sending demos to all dealers on our mailing list in the third week of September. If your local dealer does not have one at that time then have that dealer contact us. WordUp will ship to dealers in the third week of October. More information can be obtained directly from **Neotron Engineering**, 908 Camino dos Rios, Thousand Oaks, CA 91360, USA or (805)498-3840.

To all of STdom, we hope you like WordUp as much as we do, and, remember, that we want to be a responsive company-so please leave suggestions and comments online or write us(the old way).

-Shelby Moor
President- Neotron Engineering

ST FACTS & TIPS

by
Richard Maldonado

These are just a few misc. facts I have been collecting over the past few months that I thought might be of interest to some of the new ST users out there.

1. The ST's screen display uses an additional 32k of RAM.
2. Some commercial programs such as games use a boot sector to install thier program which then takes control of the ST,if no boot sector is present then upon boot up the ST searches for a folder called AUTO in drive A and then executes any non-GEM programs inside the folder in the order they were copied to the folder according to their time stamp,then next installs any accessories with the .ACC extender, next DESKTOP.INF
3. ST's must be booted from either drive A or drive C.
4. Unlike the MAC or AMIGA the ST provides no simple way to recover a trashed file.
5. You can have duplicate filenames on the same disk so long as they appear in different directories.
6. The blitter chip is supposed to speed up screen graphics; programs which write directly to screen memory will not take advantage of the blitter and some will run to fast.
7. Wait at least two minutes between file saves in order to acheive seperate time stamps.
8. Gem programs use graphics such as windows mouse etc. while TOS programs are strictly text based.
9. Run this program to see BOB (Use ST Basic)

```
10 WCLEAR 2
20 PRINT CHR$(28);CHR$(29)
30 PRINT CHR$(30);CHR$(31)
40 END
```

10. A one meg Mac Plus is still slower than an St.

Notes:

Starting next month we will begin to include a list of mebers who have advanced knowledge of specific programs so that members who are having trouble using these programs will have someone to call for help. If you have allot of experience using a specific program and would like to have your name included on the list give me a call at 224-1931.

Right now if you are a beginner and just need general help you can call any of the officers listed on page 2.

FRESNO ST USERS GROUP
P. O. BOX 3708
PINEDALE, CA. 93650

LIBRARY NOTES

The group has created a book library for the use of our members. These books will be available to be checked out at the meetings or they can be picked up at the Software Review (that's where I work). You can only keep the books for a week at a time in order to give everyone a chance to see them. There is no charge for the use of the books so be sure to check it out at the next meeting.

Mike King is the new Disk Librarian and will make arrangements to have the old disks at the meetings for copying. If you have any questions about the back copies of the Disk of the Month call Mike at 432-4818.

NEXT MEETING

Thursday ~~August 27~~ SEPT. 24

7:00 P.M.

Breuners Furniture

corner of

Cedar and Shaw